CONTENTS OF VOLUME 87

No. 1, January 1992		
Announcement from the Publisher	v	
S. C. Hempleman, F. L. Powell, T. P. Adamson and R. E. Burger (U.S.A.): CO ₂ and avian egg formation at high altitude		
R.L. Jones, S. F. P. Man, G. O. Matheson, W. S. Parkhouse, P. S. Allen, D. C. McKenzie and P. W. Hochachka (Canada): Overall and regional lung function in Andean natives after descent to low altitude	11	
G.E. Woodson and F. L. Powell (U.S.A.): Effects of hypoxia and hypercapnia on cricothyroid muscle response to airway pressure	25	
N. Weizhen, M.J.A. Engwall, L. Daristotle, J. Pizarro and G. E. Bisgard (U.S.A.): Ventilatory effects of prolonged systemic (CNS) hypoxia in awake goats	37	
J. Mitra, N. B. Dev, J. R. Romaniuk, R. Trivedi, N. R. Prabhakar and N. S. Cherniack (U.S.A.): Cardio- respiratory changes induced by vertebral artery injection of sodium cyanide in cats	49	
M. A. Douse and G. S. Mitchell (U.S.A.): Effects of vagotomy on ventilatory responses to CO ₂ in alligators	63	
M. A. Douse and G. S. Mitchell (U.S.A.): Episodic breathing in alligators: Role of sensory feedback S. Thomas, S. F. Perry, Y. Pennec and V. Maxime (France, Canada): Metabolic alkalosis and the	77	
response of the trout, Salmo fario, to acute severe hypoxia M. Ohe, M. Ogata, D. Katayose and T. Takishima (Japan): Hypoxic contraction of pre-stretched	91	
human pulmonary artery H. E. Ward and T. E. Nicholas (Australia): Effect of artificial ventilation and anaesthesia on surfactant	105	
turnover in rats S. DeLisle, D. Biggs, A. Wang and J. G. Martin (Canada): Effects of prostaglandin E ₂ on ganglionic transmission in the guinea pig trachea	115	
No. 2, February 1992		
Announcement from the Publisher	iii	
G. Supinski, A. F. DiMarco, F. Hussein, R. Bundy and M. Altose (U.S.A.): Analysis of the contraction of series and parallel muscles working against elastic loads	141	
C. U. Ukabam, S. L. Knuth and D. Bartlett, Jr. (U.S.A.): Phrenic and hypoglossal neural responses to cold airflow in the upper airway	157	
S. Matsumoto, T. Kanno, M. Yamasaki, T. Nagayama and T. Shimizu (Japan): Pulmonary C-fibers elicit both apneusis and tachypnea in the rabbit	165	
F. Marchal, A. Bairam, P. Haouzi, J. P. Crance, C. Di Giulio, P. Vert and S. Lahiri (France): Carotid chemoreceptor response to natural stimuli in the newborn kitten	183	
L. G. S. Branco, M. L. Glass and A. Hoffmann (Brazil): Central chemoreceptor drive to breathing in unanesthetized toads, Bufo paracnemis	195	
$H.S.$ Badeer and $J.$ $W.$ Hicks $(U.S.A.)$: Hemodynamics of vascular 'waterfall': is the analogy justified? $M.$ Nikinmaa and $L.$ Mattsoff (Finland): Effects of oxygen saturation on the CO_2 transport properties	205	
of Lampetra red cells T.J. Barstow, E.M. Landaw, C. Springer and D.M. Cooper (U.S.A.): Increase in bicarbonate stores	219	
with exercise N. C. Gonzalez and R. L. Clancy (U.S.A.): Mechanism of the effect of alkalosis on maximum oxygen untake in hypoxic exercise.	231	
uptake in hypoxic exercise HP. Lau, A. Sayiner, D.O. Warner, S.J. Gunst and K. Rehder (U.S.A.): Halothane alters the response of isolated airway smooth muscle to carbon dioxide	243	

CONTENTS OF VOLUME 87

No. 1, January 1992		
Announcement from the Publisher	v	
S. C. Hempleman, F. L. Powell, T. P. Adamson and R. E. Burger (U.S.A.): CO ₂ and avian egg formation at high altitude		
R.L. Jones, S. F. P. Man, G. O. Matheson, W. S. Parkhouse, P. S. Allen, D. C. McKenzie and P. W. Hochachka (Canada): Overall and regional lung function in Andean natives after descent to low altitude	11	
G.E. Woodson and F. L. Powell (U.S.A.): Effects of hypoxia and hypercapnia on cricothyroid muscle response to airway pressure	25	
N. Weizhen, M.J.A. Engwall, L. Daristotle, J. Pizarro and G. E. Bisgard (U.S.A.): Ventilatory effects of prolonged systemic (CNS) hypoxia in awake goats	37	
J. Mitra, N. B. Dev, J. R. Romaniuk, R. Trivedi, N. R. Prabhakar and N. S. Cherniack (U.S.A.): Cardio- respiratory changes induced by vertebral artery injection of sodium cyanide in cats	49	
M. A. Douse and G. S. Mitchell (U.S.A.): Effects of vagotomy on ventilatory responses to CO ₂ in alligators	63	
M. A. Douse and G. S. Mitchell (U.S.A.): Episodic breathing in alligators: Role of sensory feedback S. Thomas, S. F. Perry, Y. Pennec and V. Maxime (France, Canada): Metabolic alkalosis and the	77	
response of the trout, Salmo fario, to acute severe hypoxia M. Ohe, M. Ogata, D. Katayose and T. Takishima (Japan): Hypoxic contraction of pre-stretched	91	
human pulmonary artery H. E. Ward and T. E. Nicholas (Australia): Effect of artificial ventilation and anaesthesia on surfactant	105	
turnover in rats S. DeLisle, D. Biggs, A. Wang and J. G. Martin (Canada): Effects of prostaglandin E ₂ on ganglionic transmission in the guinea pig trachea	115	
No. 2, February 1992		
Announcement from the Publisher	iii	
G. Supinski, A. F. DiMarco, F. Hussein, R. Bundy and M. Altose (U.S.A.): Analysis of the contraction of series and parallel muscles working against elastic loads	141	
C. U. Ukabam, S. L. Knuth and D. Bartlett, Jr. (U.S.A.): Phrenic and hypoglossal neural responses to cold airflow in the upper airway	157	
S. Matsumoto, T. Kanno, M. Yamasaki, T. Nagayama and T. Shimizu (Japan): Pulmonary C-fibers elicit both apneusis and tachypnea in the rabbit	165	
F. Marchal, A. Bairam, P. Haouzi, J. P. Crance, C. Di Giulio, P. Vert and S. Lahiri (France): Carotid chemoreceptor response to natural stimuli in the newborn kitten	183	
L. G. S. Branco, M. L. Glass and A. Hoffmann (Brazil): Central chemoreceptor drive to breathing in unanesthetized toads, Bufo paracnemis	195	
$H.S.$ Badeer and $J.$ $W.$ Hicks $(U.S.A.)$: Hemodynamics of vascular 'waterfall': is the analogy justified? $M.$ Nikinmaa and $L.$ Mattsoff (Finland): Effects of oxygen saturation on the CO_2 transport properties	205	
of Lampetra red cells T.J. Barstow, E.M. Landaw, C. Springer and D.M. Cooper (U.S.A.): Increase in bicarbonate stores	219	
with exercise N. C. Gonzalez and R. L. Clancy (U.S.A.): Mechanism of the effect of alkalosis on maximum oxygen untake in hypoxic exercise.	231	
uptake in hypoxic exercise HP. Lau, A. Sayiner, D.O. Warner, S.J. Gunst and K. Rehder (U.S.A.): Halothane alters the response of isolated airway smooth muscle to carbon dioxide	243	

455

No. 3.	March	1992
--------	-------	------

Contents of Volume 87

P. Scheid and L.E. Farhi	
Foreword	1
C. A. Roth and C. Lenfant (U.S.A.): Funding biomedical research: A common ground for concern?	269
S. A. Shea and A. Guz (U.K.): Personnalité ventilatoire - An overview	275
R. Painter and D.J. C. Cunningham (U.K.): Analyses of human respiratory flow patterns	293
H. Gautier, M. Bonora and S. Lahiri (France, U.S.A.): Control of metabolic and ventilatory responses to cold in anesthetized cats	309
E. R. Weibel, C. R. Taylor and H. Hoppeler (Switzerland, U.S.A.): Variations in function and design:	30
Testing symmorphosis in the respiratory system	32
J. Piiper (Germany): Diffusion-perfusion inhomogeneity and alveolar-arterial O ₂ diffusion limitation: Theory	349
D. W. Sheehan, R. A. Klocke and L. E. Farhi (U.S.A.): Pulmonary hypoxic vasoconstriction: How	24.
strong? How fast?	35
J. G. Widdicombe (U.K.): Chemoreceptor control of the airways	37
W. Karla, H. Shams, J.A. Orr and P. Scheid (Germany): Effects of the thromboxane A2 mimetic,	
U46,619, on pulmonary vagal afferents in the cat	38
S. M. Tenney and R. M. Jones (U.S.A.): Water balance and lung fluids in rats at high altitude	39
A. Ar and Y. Piontkewitz (Israel): Nest ventilation explains gas composition in the nest-chamber of the European bee-eater	40
J.P. Truchot (France): Acid-base changes on transfer between sea- and freshwater in the Chinese	
crab, Eriocheir sinensis	41
 A. Toulmond and C. Jouin (France): Seawater salinity and blood acid-base balance in the lugworm, Arenicola marina (L.) 	42
Transaction (Let)	
Author index	44
Subject index	45